

I claim:

1. A modified high-brightness flat lamp structure comprising a reflecting plate with titanium dioxide and macromolecular polymer coated thereon, a plurality of UV light sources and a transparent substrate with macromolecular polymer and fluorescent powder coated thereon, said UV
5 light sources being arranged in said reflecting plate, said transparent substrate covering said reflecting plate, UV light emitted by said UV light sources and reflected by said reflecting plate then exciting said fluorescent powder to radiate high-brightness visible light.
- 10 2. The flat lamp structure as claimed in claim 1, wherein said titanium dioxide and macromolecular polymer is coated on an inner wall of said reflecting plate.
3. The flat lamp structure as claimed in claim 1 and 2, wherein said reflecting plate is a reflecting plate capable of reflecting UV light.
- 15 4. The flat lamp structure as claimed in claim 1, wherein said reflecting plate is cavity-shaped.
5. The flat lamp structure as claimed in claim 1, wherein said macromolecular polymer and fluorescent powder is coated on an inner wall of said transparent substrate.
- 20 6. The flat lamp structure as claimed in claim 1, wherein said macromolecular polymer and fluorescent powder is coated on an outer wall of said transparent substrate.
7. The flat lamp structure as claimed in claim 1, wherein said UV light sources are UV lamp tubes.

8. The flat lamp structure as claimed in claim 1, wherein said UV light sources are UV light-emitting diodes.
9. The flat lamp structure as claimed in claim 1, wherein said transparent substrate is made of polymethyl methacrylate (PMMA) .
- 5 10. The flat lamp structure as claimed in claim 1, wherein said transparent substrate is made of polycarbonate (PC) .
11. The flat lamp structure as claimed in claim 1, wherein said transparent substrate is made of polyethylene terephthalate (PET) .
12. The flat lamp structure as claimed in claim 1, wherein said transparent
10 substrate is made of quartz glass.
13. The flat lamp structure as claimed in claim 1, wherein said transparent substrate is made of sodium-containing glass.
14. The flat lamp structure as claimed in claim 1, wherein said transparent substrate is made of boron-containing silicate glass.
- 15 15. The flat lamp structure as claimed in claim 1, wherein said transparent substrate is made of lead-sodium-silicate glass.